INDEX.

Circular to Gas Companies.

Aire and Calder Navigation (Gas) Bill, The, 749
Albo-Carbon Light, The, at the Westminster Aquarium, 227
Alliance and Dublin Consumers Gas Company, Half Yearly Meeting of the, 509
Alliance and Dublin Consumers Gas Company, The Bill of the, 226
Amalgamation between the Northern and Southern Metropolitan Gas Companies, Advantages of, 429
Amalgamation of the South Metropolitan and Surrey Consumers Gas Companies—
  Metropolitan Board of Works and the, 790
  Opposition to the, 857
  Scheme for the, 669, 710, 926
  South Metropolitan Company, Special Meeting of the, 877
  Surrey Consumers Company, Special Meeting of the, 837.
Amalgamation on the South of the Thames, Another Proposed, 790
Barnet District Gas and Coke Company, Report of the, 266
Batley, Reduction in the Price of Gas at, 78
Beverley, The Gas Supply of, 590
Birmingham Corporation Gas Works Arbitration Case, Result of the Appeal in the, 837
Birmingham Corporation Gas Works Arbitration Case, The Litigation Respecting the Award in the, 877
Birmingham Gas Committee, Annual Report of the, 186
Birmingham, Selling Gas Stoves on the "Three Years System" at, 670
Birmingham, The Corporation of, and the Local Authority of King's Norton, 9
Blackburn Corporation Gas Works, The Accounts of the, 305
Bradford Corporation Gas Accounts, The, 966
Brighton and Hove, Mirfield, and Ilkley Gas Bills, The, 710
Brighton, Complaints of Nuisance caused by Gas Companies at, 630
Brighton Gas Company, Meeting of the, 305
Brighton Gas Company, Opposition to the Bill of the, 354, 510
Bristol Gas Company, Meeting of the, 394
Bristol Gas Company, The New Works of the, 470
Bristol, The Pyramid Electric Light Company at, 469
British Association of Gas Managers, The Annual Meeting of the, 750, 790
  Inaugural Address by the President, W. J. Warner, Esq., 925
  Mr. Cowan on "The Automatic Pressure Changer," 965
  Mr. Travers on "How can Companies best Promote the Use of Gas for Heating Purposes?" 965
  Mr. Sugg on "Lighting by Gas and Electricity," 966
British Gas Company, The Undertakings of the, at Norwich and Hull, 630
Bromley Gas Company, The, and the Local Board, 186
Bromley Gas Company, The Opposition to the Bill of the, 354
Buoys Lighted by Gas, 550
Burnley, Gas Affairs at, 510, 549
Bury St. Edmund's Gas Company, Half Yearly Meeting of the, 266
Cardiff, Gas Testing at, 926
"Cental," Legalization of the, 226
Chartered Gas Company, Alleged Deficiency in the Illuminating Power of the Gas of the, 394
Chartered Gas Company, Experiments of the, with the Electric Light, 185
Chartered Gas Company, Half Yearly Meeting of the, 225
Chartered Gas Company, Half Yearly Report and Accounts of the, 185
Chartered Gas Company, The Metropolitan Board of Works and the Bill of the, 429
Chartered Gas Company, Threatened Opposition to the Bill of the, 393
Chartered Gas Company, Withdrawal of the Bill of the, 629
Chartered Gas Company's Stock, First Sale by Auction of, 710, 877, 965
Chief Gas Examiner for the Metropolis, The Quarterly Reports of the, 10
Commercial Gas Company, Accounts of the, 469
Commercial Gas Company, Half Yearly Meeting of the, 509
Commissioners of Sewers of the City of London, The Annual Report of the, 306
Companies, Rights of, to Manufacture and Sell, without the Authority of a Special Act, 150
Cork Consumers Gas Company, Half Yearly Meeting of the, 226
Corporations and their Gas Managers, 858
Crystal Palace District Gas Company, Report and Accounts of the, 394
Crystal Palace District Gas Company, The Bill of the, 749
Death of Mr. R. Laming, 710
Death of Mr. T. B. Simpson, 790
Death of Mr. W. G. Valentin, 711
Death of Mr. T. Wills, 711
Derby Gas Company, Half Yearly Meeting of the, 353
Dover Gas Company, Half Yearly Meeting of the, 430
Dundee, An Experiment in Public Lighting in, 266
Durham Coal Miners, The Strike of the, 589, 629, 670, 710, 750
Edison's, Mr., Inventions, 265, 549
Edison's, Mr., Patent for the Electric Light, 629
Electricity, Public Lighting by, in San Francisco, 225
Electricity, The Select Committee on Lighting by, 589, 630, 669, 709, 749, 789, 877, 926, 966
"Electric Lighting and its Practical Application." By Mr. J. N. Shoolbred, 750
Electric Lighting Apparatus, Exhibition of, at the Albert Hall, 589
Electric Lighting, Recent Improvements in the Jablochkoff System of, 965
Electric Lighting, The Werdermann System of, at the South Kensington Museum, 966
Electric Light, A Moveable, 9
Electric Light, The—
  An Eye Witness on, in Paris, 150
  Appointment of the Parliamentary Committee on, 510
  At Sheffield, 354
  At the British Museum, 354, 394
  At the Liverpool Street Terminus, 77
  At the Paris Salon, 926
  Bennett and Valon's, Messrs., Report on, at Westgate-on-Sea, 77
  Board of Trade and Legislation on, 469
  City of London Commissioners of Sewers and, 510
  Collapse of, on the Holborn Viaduct, 353
  Désagréments of, 186
  Edinburgh Review and, 629
  Edison's, Mr., Patent for, 629
  Experiments with, at the South Foreland, in 1877, 77
  Experiments with, by the Chartered Gas Company, 185
  Experiments with, on the Thames Embankment, Report on the, 709
  Failure of, at Billingsgate Market, 149
  Further Trial of, on the Thames Embankment, 469
  Gas and Water Companies Association, Petition of the, *re*, 709
  Haywood, Lieut.-Col., on the Experiment with, on the Holborn Viaduct, 393
  Hedges, Mr. Killingworth, on, 114
  Is the Value of Corporation Securities likely to be Lessened by? 149
  Kirkham and Hersey, Messrs., on, 42
  Legislation on, 265
  Lubbock, Sir John, and General Legislation in Regard to, 265
  M'Crae, Mr. B. M., of Dundee, on, 354
  On the Thames Embankment, 394
  Paris, The Municipal Council of, and, 77
  Parliament and, 429
  Phelps, Dr., on, 150
  Preece, Mr. W. H., on, 150
  "Rage" for Power to Supply, 225
  Raikes, Mr., and Legislation in Reference to, 354, 393
  Salford Corporation, The, and, 354
  Silverthorne, Mr. A., on the Relation of, to Gas Companies, 42
  Spice, Mr. R. P., on, 185
  Unreliability of, 41
  Wood, Mr. A. H., on, 42
Exeter Corporation, The Improvement Bill of the, 41
Exeter, Gas Affairs at, 10, 78
Exeter Gas Works, Mr. A. Silverthorne on the Proposed Purchase of the, 114
Exeter Improvement Bill, Abandonment of the, 306
Exhibition of Electric Lighting Apparatus at the Albert Hall, The, 709
Exhibitions of Gas Appliances, 265, 306, 470, 630, 670, 710
"Fine Clauses" in Provisional Orders, 710
"Fuel: Its Combustion and Economy," 186
Gas and Its Uses, Lecture on, by Mr. Hepworth, of Carlisle, 354
Gas and Water Companies Association, Petition of, *re* Electric Light, 709
Gas and Water Legislation, 353
Gas Appliances, Exhibitions of, 265, 306, 470, 630, 670, 710
Gas Bills for 1879 in Parliament, 185, 470
Gas Burners, The Extended Use of Large, for Public Lighting, 470, 589
Gas Companies, Mischievous Opposition to, by Corporate Authorities, 113
Gas, Improved Public Lighting by Means of, 41, 149, 186, 266, 306, 394, 630
Gas Light, A New, at Westminster Bridge, 306, 394
"Gas Precedents," Mr. G. W. Stevenson's, 186
Gas Referees, Summer Instructions of the, 470
Gas Shareholders, A Re-assurance for, 9
Gas Stoves on the "Three Years System," Selling, at Birmingham, 670
Gas Testing at Cardiff, 926
Gas Testing in the Metropolis—
  Metropolitan Board and, 305
  Proposed Change of Location of the Testing Stations, 837
  St. Pancras Vestry and, 41, 114, 226
Gas, The Extended Use of, for other than Illuminating Purposes, 114
Glossop Gas Company, The Bill of the, 113, 749
Harrow District Gas Company, Meeting of the, 394
Hastings and St. Leonards Gas Company, Meeting of the, 394
Haywood's, Lieut.-Col., Report on the Improved Gas Lighting of Queen Victoria Street, 926
Hepworth's, Mr., Lecture on Gas and Its Uses, 354
Hereford, Better Sense at, 10
Heywood Gas Works, The Consumption of Coal at the, 266
Hove, The Gas Supply of, 78
Imperial Continental Gas Association, The Bill of the, 185
Ipswich Gas Company, Meeting of the, 305
Ipswich, The Public Lighting of, 750
Johnson, The Late Mr. J., 550
Jones, Mr. R. H., on the Weights and Measures Act and the Sale of Coke, 42
King, Mr., on the Use of Large Gas Burners at Liverpool, 589
Lamp Pillars, Proposed Abolition of, 589
Lancaster Gas Company, The Bill of the, 113
Lancaster Gas Company, The Transfer of the Works of the, to the Corporation, 630, 710
Leeds, Complaints of Deficiency of Gas at, 266
Leeds, The Exhibition of Gas Appliances at, 630, 670
Leeds, The Gas Accounts of the Corporation of, 470
Leeds, The Risk to the Victoria Hall at, from the Exhibition of Gas Appliances, 430
Leicester Town Council, The Gas Undertaking of the, 430
Lighting by Electricity, The Select Committee on, 589, 630, 669, 709, 749, 789, 877, 926, 966
Lighting, Improved Public, by Means of Gas, 41, 149, 186, 266, 306, 394, 630
Limerick Corporation Gas Undertaking, The, 630
Limerick Corporation, The, and the Loan for the Purchase of the Gas Works, 710
Limerick Gas Company, The, and the Corporation, 470
Liverpool, Mr. King on the Use of Large Gas Burners at, 589
Liverpool Town Council, The, and the Corporation Lighting Bill, 77
Liverpool United Gas Company, Half Yearly Meeting of the, 265
Livesey, Mr. W., on the Weights and Measures Act and the Sale of Coke, 10
London Gas Company, Half Yearly Meeting of the, 509
London Gas Company, Report and Accounts of the, 429

London Gas Company, Withdrawal of the Bill of the, 710
Maesteg, Gas Economy at, 266
Manchester District Institution of Gas Engineers, Mr. Newbigging's Address to the, 306
Manchester, The Gas Committee of, Prospecting, 590
Metropolitan Board of Works, The, and Gas Testing in the Metropolis, 305
Metropolitan Board of Works, The, and the Bill of the Chartered Company, 429
Metropolitan Board of Works, The, and the Proposed Amalgamations, 394, 790
Michael's, Mr. W. H., Evidence before the Select Committee on Lighting by Electricity, 877
Middlesbrough, The Corporation of, and the Management of the Gas Works, 750
Middlesbrough, The Gasholder Tank *Fiasco* at, 430, 550, 590
Midland Association of Gas Managers—Address of Mr. Charles Hunt, President, 226
Midland Association of Gas Managers, Sixth Quarterly Meeting of the, 790
Morecambe Gas Bill, The, 750
Nakskov, Successful Management of the Gas Works at, 966
National Electric Light Corporation, Opposition to the Bill of the, 42, 114
National Electric Light Corporation, Withdrawal of the Bill of the, 150
Newbigging's, Mr. T., Address to the Manchester District Institution of Gas Engineers, 306
Newcastle-upon-Tyne and Gateshead Gas Company, The Bill of the, 306
Newcastle-upon-Tyne and Gateshead Gas Company, The Opposition of the Newcastle Town Council to the Bill of the, 150, 226, 354
North of England Association of Gas Managers, Meeting of the, 670
Norwich, The Price of Gas at, 590, 838
Nottingham Corporation Gas Works, Extension of the, 590
Ontario Gas Company, Canada, Proposed Bill of the, 49
Oswaldtwistle, The Price of Gas at, 78
Paris Gas Company, The Annual Report of the, 670
Peterborough Gas Company, Meeting of the, 305
Petroleum and Air, Re-introduction of Lighting by Means of, 550
Petroleum, The Supply of, 590
Phœnix Gas Company, Half Yearly Meeting of the, 509
Photographing by Gaslight at Newcastle, 550, 838
Plymouth and Stonehouse Gas Company, The Bill of the, 113, 749, 838
Plymouth Gas Company, The, and the Corporation, 41, 306
Preston Gas Company, Meeting of the, 78
Pyramid Electric Light Company, The, at Bristol, 469
Ramsgate, Gas and Water Affairs at, 354
Ramsgate Local Board, The Gas Accounts of the, 838
Reading Gas Company, Meeting of the, 305
Redhill Gas Company, Meeting of the, 305
Retrospect of the Past Year, 9
Rio de Janeiro Gas Company, Meeting of the, 549
Rochdale Corporation, The Gas Accounts of the, 670
Rochdale, Proposal for Extending the Use of Gas in, 226
Sale by Auction of Chartered Gas Company's Stock, The First, 710, 877, 965
Salford, The Corporation of, and their Gas Works, 150
San Francisco, Public Lighting by Electricity in, 225
Sheffield United Gas Company, Half Yearly Meeting of the, 509
Sheffield United Gas Company, Report and Accounts of the, 394
Sheppy Gas Company, Meeting of the, 510
Silber Light Company, Limited, The, 266
Silverthorne, Mr. A., on the Proposed Purchase of the Exeter Gas Works, 114
Southern District Association of Gas Managers—Conference on the Weights and Measures Act, 113
Quarterly Meetings of the, 354, 750
South Metropolitan Gas Company, Accounts of the, 509
South Metropolitan Gas Company, Half Yearly Meeting of the, 549
South Shields Gas Company, Meeting of the, 305
South Shields Improvement Bill, Abandonment of the, 114
South Shields, The Corporation of, and the Gas Company's Bill, 354, 430
St. Pancras, Inefficient Lighting in, 470
St. Pancras, The Vestry of, and Gas Testing in the Metropolis, 41, 114, 226
Standish, The Local Board of, and the Wigan Corporation, 430
Stevenson's, Mr. G. W., "Gas Precedents," 186
Stratford-on-Avon, Differential Charges for Gas at, 226
Street Lighting, Experiments in Improved, by Means of Gas, 41, 149, 186, 266, 630
Street Lighting, Parish Parsimony in, 590
Strike of the Durham Coal Miners, The, 589, 629, 670, 710, 750
Sulphur, Excess of, in the Gas from the Kensal Green Station of the Chartered Company, 150
Surrey Consumers Gas Company, Half Yearly Meeting of the, 509
Teddington, Complaints of Gas Consumers at, 266
Testing Stations, Proposed Change of Location of the Metropolitan Gas, 837
"Three Years System," Selling Gas Stoves on the, at Birmingham, 670
Torquay, A Curious Dispute at, 186
Tottenham and Edmonton Gas Company, Meeting of the, 549
Wallace's, Dr., Lecture on "Gas Illumination," at the Society of Arts, 149
Waterloo Place, Improved Gas Lighting in, 149
Waterloo Place, Removal of the Improved Gas Lights in, 749
Weights and Measures, Act The, and the Sale of Coke, 10, 42, 113
Weights and Measures Act, The—Conference of the Southern District Association of Gas Managers, 113
Welsh Coal and Coke, The Comparative Values of, as Heating Materials, 590
Westminster Bridge, A New Gas Light at, 306, 394
West of Scotland Association of Gas Managers, Annual Meeting of the, 710, 750
West's System of Drawing and Charging Retorts, 926
Weymouth Consumers Gas Company, Half Yearly Meeting of the, 266
Wigan, The Corporation of, and their Gas Undertaking, 394
Wigan, The Gas Managing Committee's Brougham at, 186
Wigham's, Mr., Lights in Dublin, 430
Wisbech Gas Bill, The, 750
Wolverhampton Gas Company, Meeting of the, 305
Woolwich, Sale of Gas Shares at, 266
York United Gas Company, Meeting of the, 186

Water and Sanitary Notes.

Air of Large Towns, The Injurious Effects of the, on Animal and Vegetable Life, 470
Aldrington Water Bill, Rejection of the, 471
Baillie-Cochrane, Mr., and Local Taxation in the Metropolis, 927
Birkenhead and the Liverpool Water Supply, 927
Birmingham, A Dearth of Water at, 150
Bristol Water Company, Meeting of the, 550
Canterbury, The Drainage of, 78
Cardiff Water Works, The Purchase of the, by the Corporation, 150, 187
Caterham, Reported Tapping of the Lower Greensand at, 307
Caterham, The Outbreak of Typhoid Fever at, and the Water Supply, 631, 671
Cheltenham Water Company's Works, The Purchase of the, by the Corporation, 78
Cheltenham Water Company, The Final Meeting of the, 115
Cheshunt, Boring by the New River Company near, 10
Colchester, The Disposal of the Sewage of, 78
Colchester Water Company, The Bill of the, 395, 751
Colchester Water Works, The Purchase of the, by the Corporation, 591
Colne (Lancs.), The Water Supply of, 792
Death Rate, The, of the Metropolis, and the Water Supply, 395, 430, 510
Derby Water Works Company, Half Yearly Meeting of the, 307
Derby Water Works, Transfer of the, to the Corporation, 267
Drainage and Storm Water, The Disposal of, 838
Durham Water Company, Absorption of the, by the Weardale and Shildon Water Company, 227
East London Water Company, Meeting of the, 510
Edinburgh New Water Works, Opening of the, 967
Ely, The Water Supply of, 307, 395, 879
Exeter, The Corporation of, and their Water Works, 115
Fire, The Protection of the Metropolis from, 42
Floods, Conservancy Boards and the Prevention of, 267
Frankland's, Dr., Report on the Water Supply of London during 1878, 670
Glasgow and the Water Supply from Loch Katrine, 267
Glasgow, The Sewage of, 395
Graham, Major, Resignation of, as Registrar-General, 151
Health, On Underground Water Supply in Relation to, 115
Health, The Influence of Water on, 42
Howard, Mr. E. S., and the Water Supply of Lancashire and West Yorkshire, 267, 307
Lambeth Water Works Company, Report and Accounts of the, 791
Leeds Corporation, The, and their Water Supply, 471
Leicester Town Council, The Water Undertaking of the, 431
Liverpool, A Dearth of Water in, 115
Liverpool, The Corporation of, and the Borough Surveyor and Water Engineer, 878
Liverpool, The Disposal of Town Refuse at, 151
Liverpool, The Water Supply of, 42, 395, 671, 711, 791, 927, 967
Liverpool, Well Water at, 838
Local Government Board, A Strange Offer from the, 927
Local Taxation in the Metropolis, Mr. Baillie-Cochrane and, 927
Lower Thames Valley Main Sewerage Board Bill, Defeat of the, 355
Lower Thames Valley Main Sewerage Board Bill, Probable Re-introduction of the, 395
Lower Thames Valley Main Sewerage Scheme, Opposition to Lieut.-Col. Haywood's, 151
Lower Thames Valley Main Sewerage Scheme, The, 78, 227, 927, 967
Manchester Corporation Water Committee, The Annual Report of the, 187
Manchester, New Manure Works at, 839
Manchester (Thirlmere) Water Bill, Success of the, 711
Manning, Cardinal, and the Metropolitan Water Supply, 927
Margate Water Works, The Purchase of the, 355
Metropolis, Increase in the Rateable Value of the, 431
Metropolis Water Supply—
Death Rate and the, 395, 430, 510, 879
Deputation of Vestry Delegates to the Home Secretary on the, 711
Frankland's, Dr., Reports on the, 550, 751
House of Lords on the, 791
Manning, Cardinal, and the, 927, 967
Meetings of London Vestry Delegates on the, 307, 471, 967
St. Martin's Vestry and the, 267
Tidy, Dr., on the, in 1878, 187
Metropolitan Asylums Board Case, Decision of Baron Pollock in the, 151
Metropolitan Board of Works—
Cost of the Water Bills of the, in 1878, 267, 355, 395
Disallowance of the Costs incurred in Promoting the Water Bills, 751
Indemnity Bill, The, for Costs of the Late Water Bills, 838, 927, 967
London Vestries and the Indemnity Bill of the, 878
Prevention of Floods Bill and the, 307
Metropolitan Water Companies, Advantages of Amalgamation among the, 711
Metropolitan Water Companies, Returns of Mortality in the Districts of the, 751
Metropolitan Water Companies, The, and the Vestry Delegates, 630
Metropolitan Water Companies, The Registrar-General and the, 631
Metropolitan Water Works, Dr. Farr and Mr. Chadwick on the Purchase of the, 751
National Health Society, The, and Elementary Sanitary Science, 968
National Water Supply, &c., Conference on, at the Society of Arts, 751
Newcastle and Gateshead, The Water Supplyof, 510
Newcastle, Waste of Water in, 355
New River Company, Boring by the, near Cheshunt, 10
Norwich Water Works Company, Meeting of the, 187
Nottingham, Mr. M. Ogle Tarbotton on the Meteorology of, 355
Nottingham Water Works, The Purchase of the, by the Corporation, 471, 550, 711
Noxious Vapours, The Alkali Manufacturers and, 187
Playfair, Dr. Lyon, on the Water Supply of London and the Public Health, 355
Raikes, Mr., and the Indemnity Bill of the Metropolitan Board of Works, 967
Reading, The Sewage Farm at, 227
Redhill, The Water Supply of, and the Outbreak of Typhoid Fever, 471, 631, 671
Registrar-General, Report of the, for 1878, 630
Registrar-General, The, and the Metropolitan Water Companies, 631
Sewage Farms in Frosty Weather, 187
Sheffield Water Company, Meeting of the, 550
Society of Arts, The Conference on National Water Supply and Sanitary Matters at the, 355, 751
Southwark and Vauxhall Water Company, Report and Accounts of the, 878
Southwark and Vauxhall Water Company, The Half Yearly Meeting of the, 927
St. Luke's, The Constant Supply System in, 510
St. Martin's, The Vestry of, and the Metropolitan Water Supply, 267
Steam for Heating Cities, 10
Stockton and Middlesbrough, Water Charges at, 227
Tarbotton, Mr. M. Ogle, on the Meteorology of Nottingham, 355
Thames River (Prevention of Floods) Bill, Committal of the, 395
Thames Water, The State of the, during January, 307
Thirlmere Scheme, The, in the House of Commons, 471
Thirlmere Scheme, The Manchester City Council and the, 42
Tidy, Dr., on the Determination of Organic Matter in Water, 187
Tidy, Dr., on the Metropolitan Water Supply, 150, 187
Vestries, The London, and the Indemnity Bill of the Metropolitan Board of Works, 878
Vestry Delegates, The Metropolitan, and the Water Companies, 630

Water Companies, The Liabilities of, 431
Water, Dr. Tidy on the Determination of Organic Matter in, 187
Water Supply, Alleged Deficiency at Newcastle, 187
Water Supply, Alleged Deficiency in the East of London, 187
Water Supply of Lancashire and West Yorkshire, Mr. E. S. Howard and the, 267, 307
Water Supply of London and the Public Health, Dr. Lyon Playfair on the, 355
Water Supply of Rural Districts, The, 550
Water Supply, Our Underground, in Relation to Health, 115
Water Supply, The Mortality in the Metropolis and the, 395, 430, 510, 879
Water Supply, The Proposed Royal Commission on National, 591
Water, The Influence of, on Health, 42
Weardale and Shildon Water Company, Absorption of the Durham Company by the, 227
Wolverhampton Corporation Water Works, The Profits of the, 591
York New Water Works Company, Meeting of the, 187

Leading Articles.

British Quarterly Review, The, on the London Gas Companies, 79
Chemical Manipulation (Review), 884
Coal near London, 269
Conservation of Rivers, The, 43
Consumption of Gas, The, 792
Daily Telegraph, The, and the Gas Companies, 839
Edison Light, The, 228
Electric Light, The Cost of the, 296
Electric Light, The Present Phase of the, 719
Electric Light, The Reduced Charge for the, 551
Electric Light, The Select Committee on the, 968
Electric Light, The Trial of the, 356
Examination and Analysis of Coal Gas (Review), 793
Fire Brigade, The Metropolitan, and the Water Companies, 879
Gas and Water Provisional Orders for 1879, 308, 356
Gas Bills for 1879, 189, 229
Gas in the House (Review), 433
London Water Companies and their Critics, 472
More Light, 151
Noxious Vapours, 115
Port Sanitary Authority, The, and the Thames, 752
Rivers Conservancy Bill, The, 431
Sanitation, 11
Sewerage Bills for 1879, 308
Steam Engine, Two Recent Works on the (Review), 554
Underground Waters, 188
Water Bills for 1879, 267, 308

A Treatise on the Science and Practice of the Manufacture and Distribution of Coal Gas.

(*Continued from previous Volumes.*)

Treatment of Residual Products, 117, 152, 190, 231, 270, 309, 397, 432, 474, 552, 591, 631, 671, 719, 753, 794, 881, 969

Communicated Articles.

Apparatus for the Manufacture of the Ammonia contained in Gas Liquor into Solid Carbonate of Ammonia without the Use of Acids. By Mr. F. W. Brothers, 154
Concerning our Cousins German. By "Isca," 840
Control and Assistance which Gas Companies may advantageously Exercise over, and Render to Consumers, On the. By Mr. A. F. Wilson, 714
Determination of Boiling Points in Tar Distilleries, On the. By Mr. Greville Williams, F.R.S., 511
Experiments with Generator Furnaces. By "Isca," 632, 672, 715, 928, 971
Gas as Fuel. By "Isca," 357, 398, 474, 592
Gas Lighting and Decorative Art. By "Isca," 271
Machinery for Electric Lighting, The. By Mr. W. Mann, 80
Retort Furnaces in General. By "Isca," 754
Some Modern Lights. By "Isca," 554

Correspondence.

Advisability of Granting Electric Lighting Powers to Gas Companies—Livesey, W., 755
Analysis of Gas Coals—
C., 929
Greville, H. L., 884
Miller, R., 841, 972
Paterson, J., 795, 929
Scott, A., 841
Young, W., 841
A Query—
B. A. T., 756
Jarvis, W., 795
Calculating "Feet of Surface" in Condensers—
Bennett, W. C., 633, 716
M., 674
Cheapest Gas in Scotland—Miller, R., 930
Discounts on Gas Accounts—
A Country Secretary, 716
Marks, A. W., 795
Distillation of Tar—Anderson, G., 272
Duty of Gas Companies *in re* Gas Engines—Snowdon, J. and W., 119
Economical Use of Fuel—Aqua, 232
Electric Light—
A Gas Shareholder, 13
Newbigging, T., 358
Silverthorne, A., 46
Electric Light Bills in Parliament—Livesey, W., 232, 358
Exposure of Fire Clay Goods to Atmospheric Influence—Civis, 973
Extended Use of Gas—Wilson, A. F., 44
Extended Use of Large Burners for Public Lighting—Woodall, C., 512
Gas as Fuel—
Bond, F. T., 756
Isca, 795
Gas Companies and their Customers—
Cum Multis Aliis, 47
Taylor, C., 82
M'Gillivray, H., 192
Gas Engines—Wilson, R., 13
Gas Lighting *versus* Electric Lighting—Kirkham and Hersey, 82
Gas Testing in St. Pancras—Keates, T. W., 83
Gas *versus* Electric Lighting in Paris—Nicholson, J. F., 154, 192
Gaseous Fuel for Heating Retorts—Mann, W., 434
Hire of Gas Cooking Apparatus—An Old Subscriber, 973
Hotels in Newcastle—Bennett, W. H., 841
Initial Price of Gas at South Shields—Penney, J. H., 476
Lighting by Electricity—Livesey, W., 973
Limerick Gas Supply—Spillane, W., 512
Low Pressure Burners—
Bray, G., 232, 359
Sugg, W., 310, 434
Mr. Methven's Proposed Photometric Standard—Hartley, F. W., 359, 399
Paris Street Lighting—Bray, G., 973
Present Position of the Electric Light Question in Parliament—Livesey, W., 475, 512, 555
Proposed Purchase of the Exeter Gas Works—
Isca, 81
Silverthorne, A., 118
Proposed Widening of the Scope of the British Association of Gas Managers—Ambition, 972
Public Health Act (1875) Amendment Bill—Livesey, W., 594
Quality of the Metropolitan Water—Scrutator, 674
Rating of Gas Works—
C., 512
Rutter, S., 476
Recent Trials of Regenerator Furnaces at Munich—Stevenson, G. E., 884
Registration of Gas Meters—
Lex, 716
Lux, 795
Price, E., 674
R. K. M., 716
Retrospective Effect of the Gas Works Clauses Act of 1871—Obscure, 842
Sale of Coke by Measure—B., 476
Select Committee on Lighting by Electricity—Livesey, W., 594, 674
Stokers Wages—Esplin, D. B., 272
Supply of Fittings, Stoves, &c., by Gas Companies—Stevenson, G. W., 119
Turbidity of Water in Frosty Weather—
Clapham, 119
Zero, 154
Useful Rules for Gas Engineers—Cripps, F. S., 399
Use of Gas Engines in Gas Works—
Thomas, A., 82
Wimhurst, H., 46
Use of Large Burners for Public Lighting—King, W., 594
Visit of the British Association of Gas Managers to Newcastle—Thomas, J., 399
Wallace-Farmer Electric Light, The—Hartley, F. W., 81
Weights and Measures Act, 1878—
Jones, R. H., 46
Livesey, W., 12, 82
Working Results of the Regenerative System of Heating Retorts—Stevenson, G. E., 674

A Country Secretary—Discounts on Gas Accounts, 716
A Gas Shareholder—The Electric Light, 13
Ambition—The Proposed Widening of the Scope of the British Association of Gas Managers, 972
Anderson, G.—Distillation of Tar, 272
An Old Subscriber—The Hire of Gas Cooking Apparatus, 973
Aqua—The Economical Use of Fuel, 232
B.—The Sale of Coke by Measure, 476
B. A. T.—A Query, 756
Bennett, W. C.—Calculating "Feet of Surface" in Condensers, 633, 716
Bennett, W. H.—Hotels in Newcastle, 841
Bond, F. T.—Gas as Fuel, 756
Bray, G.—
Low Pressure Burners, 232, 359
Paris Street Lighting, 973
C.—
Analysis of Gas Coals, 929
Rating of Gas Works, 512
Civis—The Exposure of Fire Clay Goods to Atmospheric Influences, 973
Clapham—Turbidity of Water in Frosty Weather, 119
Cripps, F. S.—Useful Rules for Gas Engineers, 399
Cum Multis Aliis—Gas Companies and their Customers, 47
Esplin, D. B.—Stokers Wages, 272
Greville, H. L.—The Analysis of Gas Coals, 884
Hartley, F. W.—
Mr. Methven's Proposed Photometric Standard, 359, 399
The Wallace-Farmer Electric Light, 81
Isca—
Gas as Fuel, 795
Proposed Purchase of the Exeter Gas Works, 81
Jarvis, W.—A Query, 795
Jones, R. H.—The Weights and Measures Act, 1878, 46
Keates, T. W.—Gas Testing in St. Pancras, 83
King, W.—The Use of Large Burners for Public Lighting, 594
Kirkham and Hersey—Gas Lighting *versus* Electric Lighting, 82
Lex—The Registration of Gas Meters, 716
Livesey, W.—
Advisability of Granting Electric Lighting Powers to Gas Companies, 755
Electric Light Bills in Parliament, 232, 358
Lighting by Electricity, 973
Present Position of the Electric Light Question in Parliament, 475, 512, 555
Public Health Act (1875) Amendment Bill, 594
Select Committee on Lighting by Electricity, 594, 674
Weights and Measures Act, 1878, 12, 82
Lux—The Registration of Gas Meters, 795
M.—Calculating "Feet of Surface" in Condensers, 674
M'Gillivray, H.—Gas Companies and their Customers, 192
Mann, W.—Gaseous Fuel for Heating Retorts, 434
Marks, A. W.—Discounts on Gas Accounts, 795
Miller, R.—
Analysis of Gas Coals, 841, 972
Cheapest Gas in Scotland, 930
Newbigging, T.—The Electric Light, 358
Nicholson, J. F.—Gas *versus* Electric Lighting in Paris, 154, 192
Obscure—The Retrospective Effect of the Gas Works Clauses Act of 1871, 842
Paterson, J.—Analysis of Gas Coals, 795, 929
Penney, J. H.—The Initial Price of Gas at South Shields, 476
Price, E.—The Registration of Gas Meters, 674
R. K. M.—The Registration of Gas Meters, 716
Rutter, S.—The Rating of Gas Works, 476
Scott, A.—The Analysis of Gas Coals, 841
Scrutator—Quality of the Metropolitan Water, 674
Silverthorne, A.—
Electric Light, 46
Proposed Purchase of the Exeter Gas Works, 118
Snowdon, J. and W.—The Duty of Gas Companies *in re* Gas Engines, 119
Spillane, W.—The Limerick Gas Supply, 512
Stevenson, G. E.—
Recent Trials of Regenerator Furnaces at Munich, 884
Working Results of the Regenerative System of Heating Retorts, 764
Stevenson, G. W.—The Supply of Fittings, Stoves, &c., by Gas Companies, 119
Sugg, W.—Low Pressure Burners, 310, 434
Taylor, C.—Gas Companies and their Customers, 82
Thomas, A.—The Use of Gas Engines in Gas Works, 82
Thomas, J.—The Visit of the British Association of Gas Managers to Newcastle, 399
Wilson, A. F.—The Extended Use of Gas, 44
Wilson, R.—Gas Engines, 13
Wimhurst, H.—The Use of Gas Engines in Gas Works, 46
Woodall, C.—The Extended Use of Large Gas Burners for Public Lighting, 512
Young, W.—The Analysis of Gas Coals, 841
Zero—Turbidity of Water in Frosty Weather, 154

Parliamentary Intelligence.

House of Lords—
Conservancy of Rivers, 273, 360, 333
Metropolitan Fire Brigade and the Water Supply, 796
Standing Orders, 756
House of Lords Committees—
Brighton and Hove Gas Bill, 797
Glossop Gas Bill, 973

House of Commons—
Aire and Calder Navigation Bill, 757
Alliance and Dublin Consumers Gas Bill, 797
Conservancy of Rivers, 232, 767
Gas Companies and the Electric Light, 232
Gaslight and Coke Company Bill, 684
Improved Public Lighting by Gas, 558
Incidence of Rating for Sanitary Purposes, 594
Lancashire and Yorkshire Water Supply, 273, 311
Lighting by Electricity, 476, 513, 558, 930
Lighting by Electricity—Petition of the Gas and Water Companies Association, 721
Liverpool Lighting Bill, 400, 435, 476
Local Taxation in the Metropolis, 477, 930
London Gaslight and Coke Company Bill, 717
Lower Thames Valley Main Sewerage Board Bill, 361
Metropolis Gas and Water Supply, 435
Metropolitan Board of Works, Expenses of the, in Connection with the Late Water Bills, 930
Metropolitan Board of Works (Water Expenses) Bill, 973
Mortality in the Metropolis, 361, 434
Prevention of Floods, 273
Water Supply Bills, 273
Water Supply in the Metropolis, 476
Weights and Measures Act, 1878, 513
House of Commons Committees—
Aldrington Water Bill, 477
Brighton and Hove Gas Bill, 595
Glossop Gas Bill, 634
Lighting by Electricity—
Witnesses examined—
Tyndall, Prof. J., 675
Siemens, Dr. C. W., 677
Cooke, Mr. C. W., 717
Douglass, Mr. J. N., 719
Stevenson, Mr. T., 720
Preece, Mr. W. H., 720
Hopkinson, Dr. J., 757
Berly, Mons. J. A., 758
Vivarez, Mons. E. H., 759
Shoolbred, Mr. F., 760
Deacon, Mr. G. F., 760
Woodall, Mr. C., 800
Sugg, Mr. W., 802
Livesey, Mr. G., 803
Lyster, Mr. G. F., 804
Hunter, Mr. S., 804
Keates, Mr. T. W., 842
Hogg, Lieut.-Col. Sir J. M., 844
Farrer, Mr. T. H., 845
Rayner, Mr. J., 847
Thomson, Sir W., 889
Collinson, Admiral Sir R., 892
Michael, Mr. W. H., 892
Haywood, Lieut.-Col. W., 977
Report, 978
Manchester Corporation Water Bill, 513
Plymouth and Stonehouse Gas Bill, 885
Referees Court—Tipton Local Board Bill, 435

Gas and Water Bills, 47, 83, 119, 155
Progress of Bills in the House of Lords, 273, 311, 360, 400, 434, 476, 512, 633, 675, 717, 756, 796, 842, 930
Progress of Bills in the House of Commons, 273, 311, 361, 400, 434, 476, 512, 558, 593, 634, 675, 717, 756, 797, 842, 930

Legal Intelligence.

Accrington Petty Sessions—Tampering with a Gas Meter, 274
Ashton Borough Police Court—An Unpaid Gas Account, 274
Bath Petty Sessions—Charge Against a Gas Company of Wilfully Injuring a Road, 601
Bath Police Court—Charge of Stealing Gas, 557
Central Criminal Court—The Metropolitan Pure Water Supply Association Fraud, 362
Clerkenwell Police Court—Unlawfully Burning Gas, 478
Devonport Epiphany Sessions—
Devonport Gas Company *v.* Overseers of Stoke Damerel, 47
Plymouth Dock (Devonport) Water Company *v.* Churchwardens and Overseers of the Parish of Stoke Damerel, 47
Greenwich Police Court—The Use of Pump Water, 120
Hastings Borough Bench—Charge of Assaulting a Gas Collector, 763
High Court of Justice—
Chancery Division—
Continental Gas and Water Company, *In re* the, 478
Glossop *v.* Heston and Isleworth Local Board, 362
Hargreaves *v.* Farnworth Local Board, 556
Hesketh *v.* Bolton Guardians, 895
Swanston *v.* Twickenham Local Board of Health, 400
Wragg *v.* Commercial Gas Company, 119, 313
Common Pleas Division—
Parry *v.* Smith, 899
Sheffield Water Works Company *v.* Wilkinson. The same *v.* Corbridge, 435
High Court of Justice—(*continued*)
Exchequer Division—
Clutterbuck *v.* Gibb and others, 120
Upward *v.* West Middlesex Water Company, 319
Queen's Bench Division—
Clutterbuck *v.* Gibb and others, 119
In the Matter of the Birmingham Corporation and the West Bromwich Improvement Commissioners, 895
Southwark and Vauxhall Water Company *v.* Quick, 273
Tatton *v.* Staffordshire Potteries Water Works Company, 119
Watts *v.* West Surrey Water Company, 979
Kent Epiphany Assizes—Evered and Co., Limited, *v.* Rayden, 120
Leicester County Public Office—Conviction for Stealing Gas, 129
Mansion House Police Court—The Metropolitan Pure Water Supply Association Fraud, 274
Northampton Petty Sessions—The Supply of Water to Closets, 762
Reading County Court—Proceedings under the Rivers Pollution Act, 155
Richmond Petty Sessions—Supplying Gas to a Club, 14, 48, 155
Selling Coke by Measure, 401, 602
Slough Petty Sessions—Pollution of the Colne, 362
Southwark Police Court—Refusing to Pay a Gas Bill, 478
Stealing Gas, 274
Supreme Court of Judicature—Court of Appeal—
Glossop *v.* Heston and Isleworth Local Board, 762
In the Matter of an Arbitration between John Giffard Riddell and the Newcastle and Gateshead Water Company, 979
Swanston *v.* Twickenham Local Board of Health, 895
Torquay County Court—Torquay Gas Company *v.* Carter, 436
Torquay Petty Sessions—Carter *v.* Torquay Gas Company, 192
Wandsworth Police Court—Refusing to Supply Gas, 83
Westminster County Court—London Gaslight Company *v.* Grantham, 274
Yorkshire West Riding Assizes—Newbiggin Gas Company, Limited, *v.* Moffett, 273

Meetings of Companies.

Aberdare and Aberaman Gas Company, 371
Abingdon Gas Company, 522
Airedale Gas Company, 276
Alfreton Gas Company, 245
Alliance and Dublin Consumers Gas Company, 239, 526
Aylsham Gas Company, 567
Bahia Gas Company, 809
Barnet District Gas and Water Company, 319
Barnstaple Water Company, 329, 406
Belper Gas Company, 362
Bilston Gas Company, 51, 282
Bishop Auckland District Gas Company, 406
Blaenavon Gas and Water Company, 486
Blakeney Gas Company, 406
Bodmin Gas Company, 204
Bognor Gas Company, 406
Bombay Gas Company, 806
Bordeaux Gas Company, 270
Boston (Lincolnshire) Water Company, 203
Bridgend Gas and Water Company, 310
Brighton and Hove Gas Company, 203
Brighton Gas Company, 364
Bristol United Gas Company, 403
Bristol Water Company, 565
Bromley Gas Company, 365
Bromsgrove Gas Company, 283
Brussels General Gas Lighting and Heating Company, 15
Burgess Hill Water Company, 805
Bury St. Edmund's Gas Company, 278
Cagliari Gas and Water Company, 479
Cambridge University and Town Gas Company, 156
Cambridge University and TownWater Company, 159
Cannock Gas Company, 203
Canterbury Gas and Water Company, 365
Cardiff Gas Company, 372
Chatham and Rochester Gas Company, 245
Chatham and Rochester Water Company, 366
Cheadle Water Company, 567
Cheltenham Water Company, 127
Chichester Water Company, 407
Christchurch (New Zealand) Gas Company, 900
Cleator Moor Gas Company, 329
Clevedon Gas Company, 991
Clevedon Water Company, 369
Cleveland Water Company, 282
Colne Valley Water Company, 366
Commercial Gas Company, 523
Cork Consumers Gas Company, 277
Cranleigh Gas Company, 648
Croft Gas Company, 204
Crystal Palace District Gas Company, 437
Cuckfield Gas Company, 443
Derby Gas Company, 48, 362
Derby Water Company, 368, 931
Dorking Gas Company, 447
Dorking Water Company, 329
Douglas (Isle of Man) Gas Company, 360
Dover Gas Company, 439
East Ardsley Gas Company, 307
Eastbourne Gas Company, 368
East London Water Company, 518
European Gas Company, 83
Folkestone Gas Company, 407
Frodsham Gas Company, 203
Fylde Water Company, 645
Gaslight and Coke (Chartered) Company, The, 233
Georgetown (British Guiana) Gas Company, 764
German Continental Gas Company, 443
Godalming and Farncombe Water Company, 203
Godalming Gas Company, 436
Grantham Gas Company, 313
Grantham Water Company, 307
Hampton Court Gas Company, 355
Harrow District Gas Company, 401
Hastings and St. Leonards Gas Company, 402
Horsham Gas Company, 406
Howden Gas Company, 406
Ipswich Gas Company, 320
Ipswich (Queensland) Gas Company, 973
Imperial Continental Gas Association, 849
Kibworth Gas Company, 943
King's Lynn Gas Company, 355
Kirkby Lonsdale Gas Company, 313
Lambeth Water Company, 852
Lamborne Gas Company, 203
Leamington Gas Company, 485
Leominster Gas Company, 283
Lewes Gas Company, 403
Limerick Gas Company, 485
Liskeard Water Company, 245
Liverpool Gas Fittings Company, 808
Liverpool United Gas Company, 275
Llynvi Valley Gas Company, 329
London Gas Company, 515
Maidstone Water Company, 10, 368
Margate Water Company, 129
Maubeuge (France) Gas Company, 282
Mauritius Gas Company, 806
Metropolitan (Melbourne) Gas Company, 440
Monte Video Gas Company, 851
Morecambe Gas Company, 436
Napier (New Zealand) Gas Company, 991
Neath Water Company, 407
Newcastle and Gateshead Gas Company, 239
Newcastle and Gateshead Water Company, 404
Newport (Mon.) Gas Company, 279
Nictheroy (Brazil) Gas Company, 939
Normanton Gas Company, 369
North Shields Water Company, 853
Norwich Water Company, 202
Nottingham Water Company, 931
Odessa Water Company, 643
Oriental Gas Company, 438
Ottoman Gas Company, 319
Pangbourne Gas Company, 447
Pará Gas Company, 157
Paris Gas Company, 682
Peterborough Gas Company, 323
Phœnix Gas Company, 519
Plymouth and Stonehouse Gas Company, 124
Pontefract Gas Company, 282
Pontypridd Water Company, 364
Poole Gas Company, 252
Portsmouth Gas Company, 329
Portsmouth Water Company, 310
Potsdam Water Company, 330
Preston Gas Company, 84
Purston Gas Company, 447
Reading Gas Company, 322
Redhill Gas Company, 321
Richmond (Surrey) Gas Company, 372
Rio de Janeiro Gas Company, 564
Ripley Gas Company, 372
Rockhampton (Queensland) Gas Company, 440
San Paulo Gas Company, 810
Sevenoaks Gas Company, 368
Sevenoaks Water Company, 232
Sheffield United Gas Company, 562
Sheffield Water Company, 563
Sheppy Gas Company, 525
Shoreham Water Company, 16, 686
Singapore Gas Company, 641
South Hants Water Company, 322
South Metropolitan Gas Company, 558, 899
South Shields Gas Company, 238, 363
Southwark and Vauxhall Water Company, 937
St. Petersburg New Water Company, 323
Staffordshire Potteries Water Company, 941
Steyning Gas Company, 567
Sunderland and South Shields Water Company, 330
Surrey Consumers Gas Company, 521, 848
Sutton-in-Ashfield Gas Company, 282
Sutton (Surrey) Gas Company, 642
Sutton Valence Gas Company, 853
Tetbury Gas Company, 372
Thanet Gas Company, 548
Torquay Gas Company, 486
Totnes Gas Company, 728
Tottenham and Edmonton Gas Company, 561
Tunbridge Wells Gas Company, 406
Tynemouth Gas Company, 486
Uckfield Gas Company, 648
Wakefield Gas Company, 364
Watton Gas Company, 406
Weardale and Shildon Water Company, 242
Weston-super-Mare Water Company, 196
Weymouth Consumers Gas Company, 279
Wolverhampton Gas Company, 321
Worcester Gas Company, 245
York New Water Company, 241
York United Gas Company, 233

Miscellaneous News.

Alfreton, The Water Supply of, 57
Alizarine and Allied Colouring Matters, 728
Amalgamation of the South Metropolitan and Surrey Consumers Gas Companies, Scheme for the, 722
Artificial Lighting, Lectures on, 645, 728
Ashton-in-Makerfield Local Board Gas Works, 713
Aspull, The Water Supply of, 674
Atherton Local Board Gas Works, The, 940
Audley, Opening of Gas Works at, 21
Australia, Gas Coal from, 931
Australian Gaslight Company, Sydney, New South Wales, 604
Axminster, Proposed Water Supply and Drainage Works for, 566
Barton, The Gas Supply of, 91
Batley Corporation Gas Supply, 84
Beverley, The Gas Supply of, 602
Birmingham Corporation (Differential Charges Repeal) Bill, 21
Birmingham Corporation Gas Supply, 200, 810
Birmingham Corporation, The, and the Gas Works Arbitration Appeal, 901
Birmingham, The Mayor of, on Gas Works, 52
Bishop Auckland Gas Works, Contemplated Purchase of the, by the Local Board, 567
Blackburn Corporation Gas Works, 324
Bognor, The Drainage of, 567
Bradford, Scarcity of Water at, 929
Bradford, Suffocation of Three People by Gas at, 245
Brighton and Hove Gas Company's Bill, The, 56, 594
Brighton Corporation Water Works, 728
Bristol Gas Company, The New Works of the, 232, 514
British Association Committee on Underground Waters, 128
British Association of Gas Managers (Annual Meeting at Newcastle-upon-Tyne)—
Election of New Members, 932
Inaugural Address, by W. J. Warner, Esq., C.E., 932
Abstract of Proceedings, 935-6
Papers Read—
The Automatic Pressure Changer, by Mr. W. Cowan, 981
How Can Gas Companies Best Promote the Application of Gas for Heating Purposes, by Mr. T. Travers, 982
Lighting by Gas and Electricity, by Mr. W. Sugg, 984
(*Continued in next Volume.*)
British Association of Gas Managers, The Recent Visit of the, to Newcastle, 992
Brussels, The Municipal Gas Works at, 903
Buenos Ayres, The Gas Supply of, 447, 567
Bury St. Edmund's, Improved Street Lighting at, 246
Canterbury, The Sewage Question at, 21
Carburetted Hydrogen Gas, Apparatus for Producing, 52
Carburetting Air, 646, 903
Cardiff Water Works, Purchase of the, by the Corporation, 160
Carmarthen, Waste of Water in, 751
Caution, A, 447
Charing Cross, Subterranean Water at, 473
Chartered Gas Company's Stock, First Sale by Auction of, 979
Cheltenham Water Works, The Purchase of the, by the Corporation, 85
Chobham Gas Works, The, 631
Coal and Coke, The Comparative Values of, as Engine Fuel, 604
Coals, The Carriage of, to the London Gas Works, 606
Colchester Water Works, The Purchase of the, by the Corporation, 525, 603
Colne and Marsden Local Board Gas Supply, The, 550
Colne (Lancs.), The Water Supply of, 795
Cowan's Automatic Pressure Changer, 990
Damaging a Gas Meter, 155
Damaging a Street Lamp, 436
Death from Spontaneous Combustion of Coal, 604
Death of Mr. T. H. Bouttell, 78
Death of Mr. P. Le Neve Foster, 307
Death of Mr. J. Johnson, 471
Death of Mr. T. Wills, 671
Derby Water Works, The Purchase of the, by the Corporation, 280, 406, 485
Dieterich's New Method of Heating Retort Benches, 328
Dioptric Apparatus in Lighthouses for the Electric Light, 646
Doncaster Corporation, The Water Undertaking of the, 567, 671
Douglas, Mr. J., of Portsea, Retirement of, 518
Dover Gas Works, Extension of Storeage at the, 899
Dover Gas Works, Fire at the, 56
Dublin, Bursting of a Water Main in, 648
Dukinfield, Denton, and Haughton Local Boards Gas Works, The, 479
Dundee Gas Works, Annual Festival of the *Employés* at the, 14
Dunfermlime Water Works, Fatal Accident at the, 590
Durham, The Water Supply of, 245
East Brent, The Water Supply of, 57
Eckington Water Works, Proposed Purchase of the, 881
Electric Light—
Bennett and Valon's, Messrs., Report on the, at Westgate-on-Sea, 87
Chartered Gas Company's Experiments with the, 195
Dresser, Major G. Warren, on the, 16
Edison's, Mr., 280
Effect of the, on the Eyes, 792
In Lighthouse Illumination, The, 566
In Paris—Report to the Municipal Council, 88
In the United States, 483
On the Holborn Viaduct—Lieut.-Col. Haywood's Report, 441
On the Thames Embankment, 482
Paris, The City of, and the, 52, 126
Salford Borough Council and the, 406
Theory of the, 57
Tyndall, Dr., on the, 86
Wilde, Mr. H. on Some Improved Methods of Producing and Regulating the, 18
Electric Lighting in Relation to the Interests of Gas Companies, Mr. A. H. Wood on, 54
Electric Power, The Transmission of, 10
Ely, The Water Supply of, 232
Evening Star Lodge, The, 853
Exeter Corporation Gas Bill, The, 50
Exeter Corporation Water Supply, The, 127
Exeter, Gas Affairs at, 129
Exeter Gas Works, Proposed Purchase of the, by the Corporation, 14
Exeter, Waste of Water in, 884
Exhibitions of Gas Appliances, 481, 568, 903
Explosions of Gas, 21, 443, 485, 527, 648, 728, 853, 931, 973
Fires in Tar Distilleries, &c., Extinguishing, 904
Foremen Engineers and Draughtsmen, London
Fraudulent Consumption of Gas, 155
Association of, 557
Gas Analysis, Prizes for Original Investigations in, 686
Gas Appliances, Exhibitions of, 481, 568, 903
Gas Fitters, A Caution to, 57
Gas for Fog Signalling, 991
Gas from Mineral Oil, 992
Gas Heating and Ventilating Apparatus, 57
Gas Illumination, Lecture on, at the Society of Arts, by Dr. W. Wallace, 162
Gas, Lectures on, 283, 310
Gas Lighting, Experiments in Improved, 48, 156, 197, 246, 268, 397, 401, 471, 604, 673
Gas, Lighting Railway Carriages by, 56, 283
Gas Lighting *v.* Electric Lighting, by Messrs. T. N. Kirkham and T. Hersey, 53
Gas Lighting *v.* Electric Lighting, Lectures on, at Andover and King's Cross, 485, 590
Gas Liquor, The Testing of, 568
Gas Shares, Improved Value of, in France, 792
Gas Stoves, A New Non-Conducting Lining for, 879
Gas *v.* Electricity for Harbour Lighting, 991
Gas Wells in Ohio, 486
Gas Works, Successful Management of, 991
Gateshead Town Council, The, and the Newcastle Gas Bill, 329, 518
Geelong and Sandhurst (Australia), The Water Supply of, 327
Glasgow, The Disposal of the Sewage of, 673
Glossop Gas Company's Bill, The, 123, 809
Halifax, The Water and Gas Supply of, 673
Haywood's, Lieut.-Col., Report on the New Gas Lamps in Queen Victoria Street, 940
Hereford Corporation Gas Supply, The, 810
Hereford Corporation, The New Gas Works of the, 939
Hereford, The Sewage of, 56
Hersey, Mr. T., and Kirkham, Mr. T. N., on Gas Lighting *v.* Electric Lighting, 53
Herts and Essex, and Shoreham and District Water Orders, 682
Hinckley Gas Works, Proposed Purchase of the, by the Local Board, 992
Hull, The Gas Supply of, 21
Ilkeston Gas Works, The Purchase of the, by the Local Board, 329, 447
Institution of Civil Engineers, 478, 853
Invercargill (New Zealand) Corporation Gas Works, 602
Iron, The Platinization of, 282
Johnson, The late Mr. J., and the Freemasons, 792
Keighley Water Works, New Reservoir for the, 567
King's College Engineering Society, 525
Kirkham, Mr. T. N., and Hersey, Mr. T., on Gas Lighting *v.* Electric Lighting, 53
Lancaster Gas Company, The, and the Corporation, 123, 642
Lancaster Gas Works, Purchase of the, by the Corporation, 724
Leamington, Opening of New Water Works at, 165, 406, 482
Leek, The Gas Supply of, 606
Leicester Corporation Gas Supply, 442
Leicester Corporation Water Supply, 443
Lighthouse Illumination, The Electric Light Applied to, 566
Lighting, Improved Public, by Gas, 48, 156, 197, 246, 268, 397, 401, 471, 604, 673
Lime, Purification and Regeneration of Foul, 606
Limerick, The Gas Supply of, 282
Limerick, The Water Supply of, 57
Liverpool Engineering Society, 518
Liverpool Lighting Bill, The, 85, 442
Liverpool, The Water Supply of, 114
Maidstone Gas Works, Visit of the Manchester Gas Committee to the, 486
Manchester City Council, The, and the Thirlmere Scheme, 51
Manchester District Association of Gas Managers, Annual Meeting of the, 324
Manchester Scientific and Mechanical Society, 56
Margate Water Works, The Purchase of the, by the Town Council, 57, 203, 369, 436
Metropolis Gas Supply—
Chief Gas Examiner's Report, Abstracts of the, 14, 515
Queen Victoria Street, Improved Lighting of, by Gas, 401
St. Pancras, The Public Lighting in, 805
Westminster Bridge, Large Gas Lamps at, 401
Whitmore's, Dr., Reports on the Gas Supplied to Marylebone, 83, 436, 602, 805, 980
Metropolis Water Supply—
Bolton's, Lieut.-Col., Reports, 83, 319, 436, 641, 805
Conference of Vestry Delegates in St. Martin's-in-the-Fields, 319, 479, 641, 980
Deputation of Vestry Delegates to the Home Secretary, 722
Frankland's, Dr., Analysis of the Metropolitan Waters for 1878, 639
Frankland's, Dr., Monthly Reports, 48, 274, 401, 558, 763, 980
Medical Officers of Health, Monthly Returns of the, 14, 195, 362, 515, 680, 899
Metropolitan Board, The Costs of the, in Connection with the Late Water Bills, 763
Registrar-General's Monthly Returns, The, 48, 274, 401, 558, 763, 980
Whitmore's, Dr., Reports on the Water Supplied to Marylebone, 83, 436, 602, 805, 981
Middlesbrough, Local Government Inquiry at—
The Cost of Obtaining the Water Works, 604, 751
Midland Association of Gas Managers, 203, 242, 714, 812
Monte Video Water Company, 728
Nakskov (Denmark), Successful Management of Gas Works at, 991
National Water Supply, 227, 558, 750
Neglecting to Pay a Gas Account, 125
Nelson, Tapping an Artesian Spring at, 567
Newbigging's, Mr. T., Inaugural Address at the Ninth Annual Meeting of the Manchester District Institution of Gas Engineers, 325
Newcastle Town Council, The, and the Gas Company's Bill, 159, 369
New Companies Registered, 397
Newington (Yorks) Water Works, Proposed Purchase of the, 160, 196, 246, 329
Newport (Mon.) Gas Works Benefit Society, 244
North of England Gas Managers Association (Meeting at Newcastle)—
Opening Address, by Mr. J. Hepworth, 680
Paper Read—
On the Manufacture of Sulphate of Ammonia, by Mr. W. Hardie, jun., 681
Norwich, The Gas Supply of, 900
Nottingham Corporation, The, and the Water Company's Bill, 51
Nottingham Corporation Gas Supply, The, 602
Paisley Gas Works, Fall of the Purifying House Roof at the, 447
Paris, Gas in, 395
Paris, Improved Street Lighting in, 673, 942
Paris, The Water Supply of, 56
Plymouth Gas Company's Bill, The, 91
Plymouth Town Council, The, and the Gas Company's Bill, 49, 369
Portsmouth, Sewage Experiments at, 515
Potsdam Water Works, The, 17
Presentation to Mr. J. Allingham, 992
Presentation to Mr. W. Belton, 879
Presentation to Mr. W. H. Gill, 817
Presentation to Mr. W. W. Monk, 510
Presentation to Mr. J. O. N. Rutter, 631
Presentation to Mr. J. Storer, 527
Priors Marston Water Company, 795
Public Lighting, Improved, by Gas, 268, 397, 401, 471, 604, 673
Purification and Regeneration of Foul Lime, 606
Queensland, Gas Works in, 811
Queen Victoria Street, Lieut.-Col. Haywood's Report on the New Gas Lamps in, 940
Railway Carriages, Lighting of, by Gas, 56, 283
Ramsgate Local Board Gas Works, Working Account of the, for the Year, 1878, 852
Rawmarsh, The Gas Supply of, 203
Reductions in the Price of Gas, 10, 56, 83, 203, 268, 282, 355, 372, 447, 567, 671, 714, 728, 767, 853
Registrar-Generalship, The, 167
Registrar-General, The, and the Water and Gas Supply of London, 639
Retford, The Water Supply of, 603
Retirement of Mr. J. Douglas, of Portsea, 518
Rochdale Corporation Gas Works, 989
Rochdale, The Price of Gas at, 18
Rotherham Corporation, The, and the Rawmarsh Local Board, 486
Sales of Gas and Water Shares, 81, 119, 203, 232, 239, 282, 369, 372, 406, 447, 520, 522, 567, 604, 686, 716, 728, 767, 792, 817, 853, 970, 991
Salford Corporation Gas Supply, The, 931
Salford Corporation Gas Works, Alterations and Improvements at the, 161
Salford, The Water Supply of, 591
Scotland, Pollution of Rivers in, 204
Skegness, The Water Supply of, 792
Society of Arts, Annual Conference at the, on National Water Supply, Sewage, and Health, 716

Society of Arts, Lecture at the, on Gas Illumination, by Dr. W. Wallace, 162
Society of Arts Technological Examinations, 686
Society of Engineers, 197, 936
Southern District Association of Gas Engineers and Managers, 120, 370, 764
South Australia, The Water Supply of, 605
South Hants Water Company's Works, Opening of the, 165
South Metropolitan Gas Works, Extension of Storeage at the, 792
South Shields Gas Company's Bill, The Opposition to the, 329, 397, 443
South Stockton, The Water Supply of, 227
South-West of England District Association of Gas Managers, 397, 445
Spontaneous Combustion of Coal, Death from, 604
Stafford Corporation Gas Works, 853, 941
Stafford Gas Company, Presentation to the Manager of the Late, 527
Stockton and Middlesbrough Water Works Purchase, The, 943
Stoke, The Sewerage Question at, 567
Stourbridge, Bursting of an Ammoniacal Liquor Tank at, 406
Strood Water Works, Purchase of the, by the Rochester Corporation, 10, 567, 686
Suffocation by Gas, Deaths from, 245, 604
Sugg's, Mr. W., Improved System of Street Lighting, 197
Sunday Labour in Gas Works, 196
Tar Distilleries, Extinguishing Fires in, 904
Temperatures, A New Method of Determining High, 21
Thames, Pollution of the, 930
Thirsk, The Water Supply of, 602, 879
Thirsk Water Works Company, Limited, 56
Tidy, Dr. C. M., on the Quantity and Quality of the Water Supplied to London during 1878, 193
Ulverston Local Board Gas Works, The, 901
Underground Waters, The British Association Committee on, 128
Unlawfully Connecting a Pipe to a Gas-Meter, 155
Unlawfully Taking Gas at Newbury, 14
Ventnor Gas and Water Company, Absconding of the Manager of the, 165
Wallace, Dr., on Gas Illumination, 162
Warrington Corporation Gas Supply, The, 92
Warrington, The Gas Question at, 13
Wells (Somerset) Water Company, Appointment of Mr. E. Padfield as Secretary and Manager to the, 926
West Bromwich, Plans of the New Gas Works at, 114
West Houghton, The Water Supply of, 522
West of Scotland Gas Managers Association (Meeting at Coatbridge)—
Financial Position of the Association, 726
Election of Office Bearers and Admission of New Members, 726
The Assessment of Gas Works, 726
Gas Managers and the Franchise, 726
Valedictory Address by the President, Mr. S. Stewart, 726
The Lime Question, 766
Miscellaneous Business, 902
Proposed Amalgamation of the Association and the North British Association of Gas Managers, 902
West of Scotland Association (*continued*)—
Papers Read—
Remarks on the Analysis of Gas Coals, by Mr. A. Scott, 765
On the Pulsations in the Retort, by Mr. R. Mitchell, 902
Witton Park Gas Works, Serious Accident at the, 56, 203
Wolverhampton Corporation Water Works, 603
Wood, Mr. A. H., on Electric Lighting in Relation to the Interests of Gas Companies, 54
Worthing, Lecture on Gas at, by Mr. J. Richmond, 283

Trade Reports, 20, 55, 91, 128, 164, 202, 245, 281, 328, 405, 446, 485, 526, 567, 605, 647, 685, 727, 766, 816, 853, 904, 942, 992
Share List of Gas and Water Companies, 23, 165, 330, 486, 687, 854

Register of Patents.

Anderson, W.—Ball and other Taps, 92
Aube, P.—Manufacture of Gas, 993
Bangs and Burnett—Carburetters, 648
Bray, G.—Gas Burners, 607
Brock, G.—Lighting Railway Carriages, &c., 606
Clark, W.—Condensing Liquefiable Gases and Vapours, 992
Cornelius, G. F.—Gas from Hydrocarbon Oils, 649
Cullen and M'Kellar—Cocks or Valves, 993
Dewrance, J.—Cocks, 92
Forbes and Abbott—Distillation of Coal, 649
Foulis, W.—Dip Pipe, 607
Gambier, H. C.—Gas Stoves, 22
Gordon, J.—Regulating the Supply of Water, 992
Green, H.—Scrubbing Coal Gas, 21
Hammond, J.—Purifying Coal Gas, 22
Harrison, H.—Water Taps or Cocks, 993
Hart and Potter—Valves for Liquid, Steam, and Gas Pipes, 648
Howard, Wilson, and Kingdom—Regulating the Flow of Liquids under Pressure, 607
Johnson, J. H.—Hydrants, 92
Kirkham, Hulett, and Chandler—Condensing and Washing Gas, 606
Kromschroeder, J.F.G.—Carburetting and Purifying Coal Gas, 992
Lezius and Zabel—Self-Closing Valves, 607
Mills, B. J. B.—Manufacture of Gas, 607
Nawrocki, G. W. von—Meters for Measuring Liquids, 648
Newton, H. E.—Gas Regulators, 648
Pieper, C.—Purifying Coal Gas, 649
Pitt, S.—Producing, Purifying, and Regulating Gas, 22
Quaglio, J. V.—Purifying Coal Gas, 606
Schülke, J.—Dry Gas Meters, 649
Spence, P.—Treating Spent Oxide of Iron, 607
Stephan, J. A.—Carburetted Hydrogen Gas, 649
Stewart, A. and C.—Cocks and Taps, 649
Thompson and Maw—Generating Heat by Gas, &c., 23
Varley, S. A.—Electrical Apparatus for Lighting, 992
Vaughan, E. P. H.—Production of Combustible Gases, 648
Warner, J.—Charging and Discharging Gas Retorts, 92
Weyhe, W.—Gas Motor Engines, 606
Wirth, F.—Treating Ammoniacal Liquids, 606
Wise, W. L.—Lighting Apparatus, 993

Ball and other Taps—Anderson, W., 92
Carburetted Hydrogen Gas—Stephan, J. A., 649
Carburetters—Bangs and Burnett, 648
Carburetting and Purifying Coal Gas—Kromschroeder, J. F. G., 992
Charging and Discharging Gas Retorts—Warner, W. J., 92
Cocks—Dewrance, J., 92
Cocks and Taps—Stewart, A. and C., 649
Cocks or Valves—Cullen and M'Kellar, 993
Condensing and Washing Gas—Kirkham, Hulett, and Chandler, 606
Condensing Liquefiable Gases and Vapours—Clark, W., 992
Dip Pipe—Foulis, W., 607
Distillation of Coal—Forbes and Abbott, 649
Dry Gas Meters—Schülke, J., 649
Electrical Apparatus for Lighting—Varley, S. A., 992
Gas Burners—Bray, G., 607
Gas from Hydrocarbon Oils—Cornelius, G. F., 649
Gas Motor Engines—Weyhe, W., 606
Gas Regulators—Newton, H. E., 648
Gas Stoves—Gambier, H. C., 22
Generating Heat by Gas, &c.—Thompson and Maw, 23
Hydrants—Johnson, J. H., 92
Lighting Apparatus—Wise, W. L., 993
Lighting Railway Carriages, &c.—Brock, G., 606
Manufacture of Gas—
Aube, P., 993
Mills, B. J. B., 607
Meters for Measuring Liquids—Nawrocki, G. W. von, 648
Producing, Purifying, and Regulating Gas—Pitt, S., 22
Production of Combustible Gases—Vaughan, E. P. H., 648
Purifying Coal Gas—
Hammond, J., 22
Quaglio, J. V., 606
Pieper, C., 649
Regulating the Flow of Liquids under Pressure—Howard, Wilson, and Kingdom, 607
Regulating the Supply of Water—Gordon, J., 992
Scrubbing Coal Gas—Green, H., 21
Self-Closing Valves—Lezius and Zabel, 607
Treating Ammoniacal Liquids—Wirth, F., 606
Treating Spent Oxide of Iron—Spence, P., 607
Valves for Liquid, Steam, and Gas Pipes—Hart and Potter, 648
Water Taps or Cocks—Harrison, H., 993

Patent Notices, 23, 93, 166, 204, 246, 283, 330, 372, 407, 448, 487, 568, 607, 650, 687, 853, 905, 943, 993